

Abstract

A system and method of controlling the pressure within a pressure cuff of a surgical
tourniquet so as selectively to occlude blood flow within a portion of a limb of a
5 patient, wherein a sensor determines when flow past the tourniquet is occurring so
that corrective action may be taken, such as by increasing the pressure in the
tourniquet or by notifying an operator of the flow past the tourniquet. The present
invention may use an acoustic sensor to detect Korotkoff sounds indicating incipient
blood flow past the tourniquet. When such signals are detected, the tourniquet
10 controller may either incrementally increase the pressure in the tourniquet, or if a
threshold would be exceeded by such an increase, signal an alarm indicative of the
blood flow.